

Participatory Marine Governance Analysis (PMGA) Handbook

A participatory research toolkit to learn from
marine governance innovations

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About GCRF Blue Communities

GCRF Blue Communities is a four-year research capacity-building programme for marine planning in Southeast Asia, funded by the UK Government's [Global Challenges Research Fund \(GCRF\)](#). The aim of the programme is to build capacity for promoting “sustainable interactions with marine ecosystems for the benefit of the health, well-being, food security and livelihoods of coastal communities in Southeast Asia” ([blue-communities.org](#)). The programme has [12 interconnected research projects](#) that support marine planning through UK–Southeast Asia academic-stakeholder collaborations in four UNESCO Man and Biosphere Reserves (MAB) and one marine park: Taka Bonerate-Kepulauan Selayar Biosphere Reserve in Indonesia; Palawan Biosphere Reserve in the Philippines; Cu Lao Cham – Hoi An Biosphere Reserve in Vietnam; North Devon Biosphere Reserve in the United Kingdom; and Tun Mustapha Marine Park in Sabah, Borneo Malaysia.

Blue Communities is a collaboration between UK and Southeast Asia universities: University of Exeter, University of Plymouth and Plymouth Marine Laboratory; and Hanoi National University of Education, The Centre for Sustainable Energy and Resources Management Universitas Nasional (CSERM-UNAS), University of Malaya's Sustainability Science Research Cluster, and the College of Fisheries and Aquatic Sciences, Western Philippines University.

Background to the handbook

The handbook results from capacity development undertaken during Blue Communities on participatory governance analysis. A previous version of the handbook was developed as a training reference for Southeast Asian teams of researchers from Blue Communities' partner institutions to analyse the four case-study marine reserves and parks. While the approach was developed for the Southeast Asia context, the training, methodology and tools can be applied to analyse diverse marine (or environmental) governance innovations. This version of the handbook presents the toolkit for wider dissemination and application beyond the life of the Blue Communities programme.

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1. Introduction

Marine and coastal ecosystems are vital for the livelihoods, food security and well-being of millions of people worldwide. These ecosystems are under mounting pressure from climate change, pollution and an increasing demand for marine resources. Finding governance solutions that promote the sustainable use of marine resources by multiple users, enhance the well-being of coastal communities and protect marine ecosystems is an important global imperative. In other words, we need innovations in marine governance – **the creation of new ideas for governing the marine environment and the process by which these ideas are adopted and adapted in new places.**

Marine governance innovations can range from introducing new technologies or behavioural change initiatives, to establishing marine protected areas (MPAs) or networks of MPAs, to ecosystem and integrated management of entire seascapes. Much can be learnt from the innovations in marine governance that are occurring worldwide today in diverse contexts. Learning from these innovations can help to improve their future development, adaptation and scaleup to new contexts.

This Participatory Marine Governance Analysis (PMGA) handbook offers a toolkit for learning from marine governance innovations through the participation of those involved in their implementation. It provides tools that analyse the enablers and barriers to the successful implementation of marine governance innovations.

Firstly, the manual outlines relevant concepts, before introducing the PMGA process. Secondly, it presents three analytical tools: (i) Institutional Analysis; (ii) Innovation Histories; and (iii) Net-Map. The institutional analysis records the wider governance context within which the innovation is implemented, the innovation history learns from past processes of change in governance, and Net-Map analyses the current relationships and distribution of power within the governance system. In combination, these analytical tools support participants to identify opportunities to improve governance processes and outcomes in the future. As appendices, there are workshop agendas, interview protocols, research tips and ethics materials.

About the PMGA Handbook

What are the main objectives?

The PMGA Handbook provides a process to:

- Build the capacity of facilitators in governance theory and participatory research
- Systematically analyse the governance context within which facilitators are working, and for other stakeholders participating in an innovation process to learn from each other and reflect on how to improve the performance of marine governance in the future
- Draw lessons for initiating and implementing the marine governance innovation in other places.

Who is this handbook for?

The PMGA process can be facilitated by:

- Technical advisors, monitoring, evaluation and learning specialists or evaluators working with international NGOs or government agencies
- Marine environmental social scientists
- Students interested in marine governance.

Implementors of the innovation (e.g. MPA managers, programme managers) from local government, local NGOs or communities should be engaged as co-facilitators of the PMGA, in addition to their participation in the research itself.

When should it be used?

The PMGA process can be used to generate learning on existing programmes, policies or interventions. It is therefore best applied during or after projects, or during ongoing programmes.

How long will it take?

The amount of time the process will take depends on the scope of analysis and decisions made regarding the adaptation of methods. For example, implementing the Innovation Histories and Net-Map methods through interviews will take longer than through workshops. It will also depend on whether there is an existing presence and relationship with key stakeholders.

What happens after the PMGA process?

The analysis can be used as part of programme evaluations, programme or project design, internal learning activities, awareness raising or advocacy campaigns, or academic qualitative research.

2. Background and key concepts

This section provides an overview of the key concepts underpinning the PMGA.

2.1 Governance

While there are many definitions and frameworks for analysing governance, this handbook adopts the *interactive governance* perspective, which has been elaborated in a book for academic audiences (MARE, 2005) and practitioner audiences (Bavinck et al., 2005). Governance can be defined as:

“the involvement of a wide range of institutions [rules, norms and strategies] and actors in the production of policy outcomes [...] involving coordination through networks and partnerships” (Gregory et al., 2009: 317).

The interactive governance perspective provides a framework to organise thinking and information about governance, which can help with understanding a complex picture of institutions, organisations and networks. The following aspects of interactive governance systems are important to consider when you plan your research and when you analyse your data collected using the PMGA.

2.1.1 Interactions amongst many and diverse actors

A diverse range of actors are involved in marine governance. Governance, traditionally, was viewed as the occupation of governments (i.e. the state), which use laws, procedures, money and staff to address societal problems. State actors can include policy-makers, administrators, marine scientists, and government agencies. However, the critical role of other actors in addressing problems has become increasingly apparent, including resource user associations and cooperatives, NGOs, faith-based organisations, marine businesses, consumer associations and the general public.

The marine environment is therefore governed by many categories of stakeholder, each playing different roles, having different interests and opinions about problems and solutions, and different agendas and capacities to influence the governance system. No single actor controls the governance of marine resources; instead, it is the interactions among them that steer governance systems.

There can be conflict between stakeholders, but their diversity is also a source of new ideas and innovations to solve problems. Bavinck and colleagues (2005) suggest that governance is like:

“having many hands mould the clay on a potter’s wheel. Some hands have an advantage over others, but never to such an extent that they completely determine the shape of the pot being created.”

The analytical tools outlined in proceeding sections offer a way to identify categories of stakeholder, their different roles and interests, and how their interactions influence marine governance, both today (Net-Map, Section 6) and over time (Innovation Histories, Section 5).

2.1.2 Orders of governance

Many activities are involved in the governance of the marine environment, from routine decisions about minor matters to the development of strategic plans or the zoning of entire oceans. The interactive governance perspective categorises activities under three ‘orders of governance’. These orders are like layers, with each acting on the layer beneath it.

First order governance refers to the day-to-day solving of problems and routine management activities, including the enforcement of rules, conflict resolution amongst stakeholders, and accessing and using information. In marine governance, examples include maritime enforcement, monitoring and surveillance and marine protected area (MPA) management. These require daily interactions amongst people and organisations to find solutions to problems and create opportunities.

Second order governance deals with the maintenance and development of institutions. Institutions can be statutory (formal) like maritime laws and regulations set by governments, or customary (informal) such as cultural norms, customs and traditions, which are generally unwritten. Institutions shape the choice and set the rules for day-to-day problem solving and management (first order governance). Problems can arise when institutions do not change fast enough to respond to changing circumstances, such as the arrival of new migratory fishers or when new marine activities are outside the initial scope of existing institutions. To be effective, institutions must have a high degree of legitimacy for stakeholders to support, respect and therefore abide by the rules. If institutions are poorly matched with the problems they were designed to address or are regarded as illegitimate, they can hamper rather than enable problem solving and management.

The **third order, or meta-governance**, refers to underlying principles, knowledge paradigms, ethics, values and norms. These guide the development of institutions and form the basis for evaluating current practices and goals, and for creating new ones. Principles are moral, and determined through the interactions of actors, and therefore vary from culture to culture. Identifying underlying principles helps to guide second order and first order governance – they are the foundations to governance.

Figure 1 shows the various components of governance systems and their interactions, which can occur across levels, from international to local, and result in the character of a governance system changing over time (see Section 2.3). The interactive governance perspective provides a framework to organise information and think about governance systems, making it possible to understand a complicated array of actors, institutions, instruments and management tools. By identifying and understanding the nature of the components and the interconnections between them, it will help those involved in governing the marine environment to pay attention to important relationships and to seek opportunities to address challenges, concerns, and hard choices.

Analysing how governance innovations (Section 2.3) interact with these orders and components can reveal the depth of change it results in, and what governance components hinder and enable its implementation.

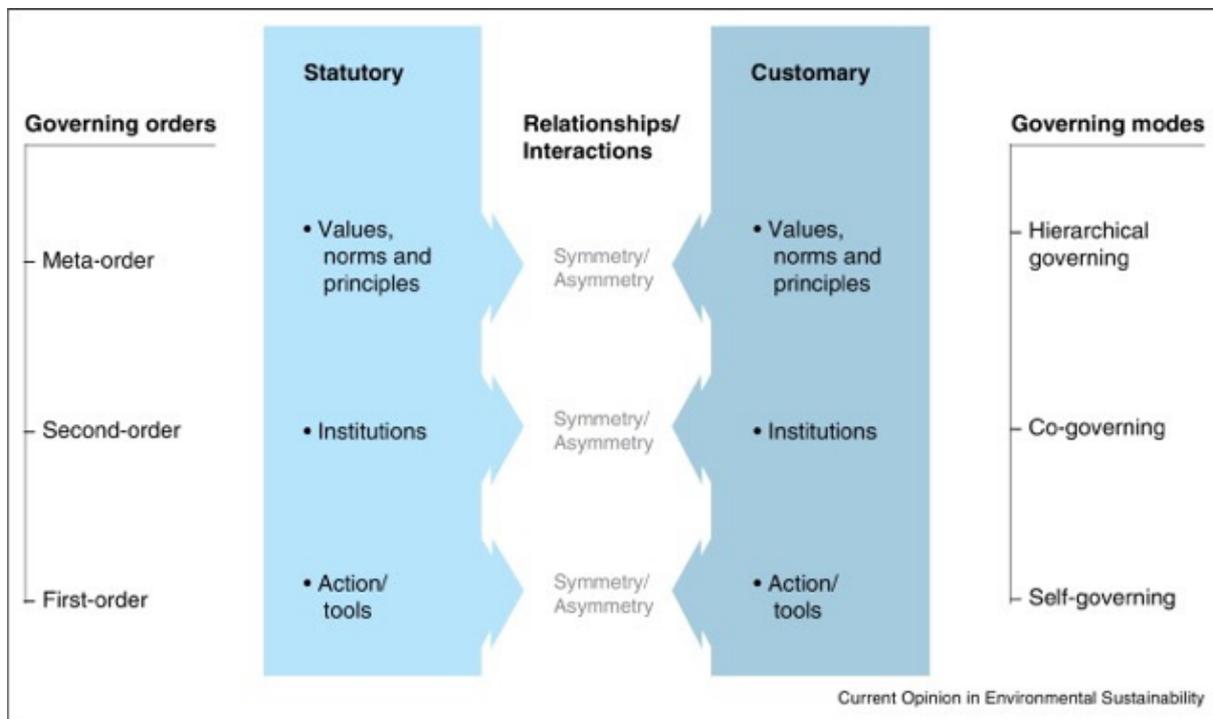


Figure 1: Interactive governance. Source: Jentoft and Bavinck, 2014.

2.1.3 Modes of governance

Some interactions between actors can be formal and vertical, like those between central/national government and local governments. Others are more informal or semi-formal and horizontal, like those amongst local businesses or community groups. By recognising patterns in these interactions, broad modes or styles of governance can be identified:

Self-governance is the most informal mode of governing, where individuals, families, groups, organisations or networks of these, govern their activities by themselves. For example, self-governance of marine resources was traditionally observed in Southeast Asian communities, where there were customary rules for marine resource extraction. Community-based marine protected areas (MPAs) have sought to re-establish self-governance of the marine environment in such communities.

Hierarchical governance is the traditional style of governance, characterised by top-down interventions, with the state steering, planning and controlling through instruments like laws, policies, taxes and subsidies. Hierarchical governance of the marine environment is commonplace through, for example, national laws and subsidies. However, in reality, goals are rarely set by government in isolation from stakeholders, and laws and regulations are rarely enforceable without cooperation with stakeholders. This form of governance has in the past undermined traditional self-governance and often increased the overexploitation of marine resources through ineffective state instruments and subsidies.

Co-governance is the newest mode of governance, whereby multiple state and non-state actors collaborate to pursue common goals. A degree of autonomy is given up by each stakeholder in the interest of developing mutual agreements and common rights. Stakeholders cooperate, and

coordinate and communicate 'horizontally' rather than there being a central, dominant actor. Co-governance processes are necessarily inclusive, requiring open dialogue, negotiation and conflict resolution. This style of governance is regarded as being appropriate for dealing with complex and dynamic situations and problems, like those found in the marine environment. Networks, public-private partnerships, and co-management are examples of co-governance in action.

Understanding where the governance style of a country sits in respect of these modes will shed light on how and why a governance innovation was implemented and adapted.

Describe the style of governance that is dominant in the country where the innovation has been implemented

2.1.4 Power in governance

Power is a central concern when analysing governance. There are many theories of power, but fundamentally it is about the ability to cause consequences (Lukes, 1986). Power is unevenly distributed in societies, which results in individuals and groups having different access to resources and opportunities. Morrison et al. (2017) define three broad types of power in natural resource governance systems:

Power by design is the formal authority to make rules, allocate resources, and set administrative structures to tax and regulate natural resource use. These decision-making powers can be distributed across levels (e.g. international to local) according to national constitutions and jurisdictions.

Pragmatic power is found in informal capacities, such as reputation within a community or the ability to control information or give trusted advice. Organisations and individuals have varying abilities to influence decision-making and the implementation of marine management through their informal capacities. Networks of leaders use their skills and qualities (e.g. charisma) to influence others and decisions.

Framing power is the (often invisible) capacity to develop rules and knowledge, and to frame problems, construct issues and set norms. The way problems are framed is important because it results in different solutions. For example, management actions would be different depending on whether declines in fish catches are framed as a problem of blast fishing by small-scale fishermen or as a problem of commercial boats catching too many fish. Individuals and organisations have different influence on framing problems (e.g. scientists may be trusted more than fishermen).

Importantly, **power is not something a person or stakeholder possesses; power is found in interactions – it is about the relationships between people.** These regular interactions over time create the orders of governance outlined above. Individuals or organisations act because they have power, or to become more powerful or to maintain the relationships that keep them powerful. The

distribution of power can change over time, sometimes slowly and sometimes rapidly, as interactions change. For example, when marine management is decentralised, national governments relinquish certain responsibilities and some of their authority to local government and/or other stakeholders.

Recognising the importance of power, this handbook offers methods for understanding the relationships between stakeholders involved in marine governance, the different influence of these stakeholders, how their influence has changed over time, and the different roles of stakeholders in changing the governance system and shaping governance outcomes.

How do these different types of power manifest in your case study?

2.2 Marine governance: models and approaches

Marine ecosystems face increasing threats from both land- and sea-based human activities, including pollution, exploitation, invasive species, habitat degradation and loss, and climate change (MA, 2005). At the same time, there is increasing competition between marine sectors for often declining resources. The persistence and worsening of these problems worldwide highlight that current marine governance approaches are failing. Various broad management models or approaches exist that promise to improve governance of the marine environment (Table 1). The process of introducing these different models and approaches into a place or context can be described as a process of innovation, a theme we pick up on in the proceeding Section 2.4. **The interactive governance framework described above provides a useful analytical lens for understanding governance processes and explaining outcomes, including how effectively governance models or approaches are implemented.**

Table 1: Marine governance models and approaches

| Model/approach | Description |
|---|---|
| Marine Protected Areas (MPAs) | <i>'Any area of intertidal or sub-tidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment'</i> (Kelleher, 1999: xi). MPA is a catchall term for a range of protection statuses such as no-go, no-take and multiple-use zones, which in turn are given a variety of names, such as marine parks, sanctuaries and reserves (Jentoft et al., 2007). |
| Integrated coastal management (ICM) and integrated coastal zone management (ICZM) | <i>'An interdisciplinary and intersectoral approach to problem definition and solutions in the coastal zone'</i> (Post et al., 1996). The process aims to address the fragmented sectoral-based management, government jurisdictions, and land and water management. It recognises that land management affects the marine environment through the hydrological cycle, and aims to address conflict between sectors in order to improve the sustainability of the marine environment (Cicin-Sain et al., 1998). |

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| Ecosystem-based fishery management (EBFM) | EBFM is a sectoral approach focused on fishery management that aims to sustain marine ecosystems in order to enhance the fisheries they support. This can involve improving the understanding and management of interactions amongst stocks of fish, fish stocks and prey, and fish stocks and their habitat (Christie et al., 2007). |
| Ecosystem Approach to Fisheries Management (EAFM) | Differs from EBFM by placing more emphasis on the need to balance ecological function with the needs of people (Christie et al., 2007). EAFM has now been adopted as the recommended management framework of the Coral Triangle Initiative (CTI) for Coral Reefs, Fisheries and Food Security in Southeast Asia. |
| Marine ecosystem-based management (EBM) | The goal of EBM is <i>'to maintain an ecosystem in a healthy, productive and resilient condition so it can provide services [that] humans want and need'</i> (McLeod and Leslie, 2009: 4). Unlike EBFM and EAFM, marine EBM provides a comprehensive, integrated approach to the management of the marine environment. EBFM or EAFM are regarded as potential sub-components of this broader framework (Christie et al., 2007). Concepts such as ridge-to-reef, seascapes (Conservation International), ecoregions (WWF), and regional seas (UNEP) reflect a growing focus on large-scale EBM. |
| Marine conservation planning | The strategic positioning of MPAs and other area-based management strategies, and the setting of geographically explicit priorities for conservation (Leslie, 2005). Unlike marine spatial planning, the primary planning objective is often biodiversity conservation, but other objectives are also considered, such as sustaining ecosystem services, preserving cultural values and providing opportunities for research and education. |
| Marine Spatial Planning (MSP) | Brings together multiple, diverse users of the marine environment to make decisions about how to use marine resources. It is a strategic, integrated, plan-based process for dealing with multiple conflicting objectives and uses of coastal/marine areas (Douvere, 2008). MSP is regarded as a practical way to implement ecosystem-based management. To date, MSP has been mainly developed conceptually and practised in the Global North, but its application in the Global South is attracting increasing interest and funding (TNC, 2018). |

What marine governance models and approaches have been applied in your country?

2.3 Marine governance innovation

2.3.1 Management models need to be adapted to fit context

The above models of marine governance are conceptual: they are ideas for management with principles and guidelines, rather than blueprints that can be applied in the same way universally. Adaptation of these models to fit contexts is desirable and necessary to make them locally feasible and acceptable to stakeholders. Importantly, they need to build upon and add value to existing approaches to marine management. Stakeholders will have made substantial (financial, technical and political) investments in existing approaches, so building upon rather than starting anew is more likely to get buy-in from stakeholders (Christie et al., 2007; Aswani et al., 2012). Furthermore, the

models have generally been developed and applied in Western, developed-world contexts, primarily by scientists, and therefore need to be adapted to fit other contexts that present a different set of challenges.

2.3.2 Governance innovations

Innovation is the process by which new ideas are adopted and spread within society or to new places (Mulgan et al., 2006). One type of innovation is the emergence and diffusion of new governance models or approaches, like marine spatial planning (MSP), that aim to improve nature resource or ecosystem management (SRC, 2015). Viewing the initiation and implementation of marine governance models as innovations highlights that their practical application requires them to be reworked and adapted to fit the local context. This innovation process involves negotiation, problem solving and learning amongst stakeholders over an extended period of time.

Governance innovations tend to be trickier to define than specific technological innovations; they may alter activities in any one or all of the orders of governance (Section 2.1.2), including the introduction of technologies and management arrangements (first order), new institutions such as laws (second order), or even change the worldviews, principles and norms of societies (meta-order). The process often involves the exchange of ideas, perspectives and practical and contextual considerations between internal actors (e.g. a marine park authority) and external actors (e.g. international NGOs and government agencies).

The methods in this handbook enable stakeholders directly involved in the initiation and implementation to analyse and learn from a marine governance innovation with the support of external facilitators. This will provide valuable lessons on their individual and group experiences of implementing new approaches that can improve management performance in the future while enabling those lessons to be recorded and shared with actors involved in developing new approaches worldwide.

2.4 Barriers and enablers to marine governance innovation

Research in several fields – including technology, natural resource management and innovation studies – have highlighted factors that both enable and hinder innovations (see Tables 2 and 3). **While processes of governance change are complex and difficult to control, identifying factors and mechanisms that drive change can be helpful for developing strategies to influence change in future projects and programmes.**

Table 2: Examples of enablers and other factors that support successful governance innovations

| Enablers and factors | Description | References |
|--|---|-----------------------------------|
| New opportunities open up <i>'Windows of opportunity'</i> | Large-scale changes in societies or the economy (e.g. increased environmental awareness) can make new ideas acceptable and feasible to implement Crises (e.g. collapse of fisheries) make people question the current governance arrangements and seek solutions | Westley (2013); Pel et al. (2016) |
| Informal networks (e.g. networks of MPA managers) and social movements | Independent of formal politics and regulations and may be less constrained in their thinking Incubate new ideas and approaches to governance, which may later become adopted when windows of opportunity open | |

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| Partnerships | Effective alliances between small and large organisations, and entrepreneurs/leaders/champions, which can grow ideas to scale Can cut across organisational, sectoral or disciplinary boundaries | Mulgan et al. (2016) |
| Change agents/ leadership/ entrepreneurs | Convince others that a problem needs addressing Present a vision of the future and mobilise support for the vision Facilitate communication, information-sharing and trust-building between otherwise disconnected actors Secure resources to invest in an innovation Adapt plans to deal with unexpected challenges | Young (1991); Folke et al. (2005) |
| Connecting/bridging organisations and institutions | The actors and institutions that link together people, ideas, money and power | |
| Doing and adapting | The reworking of ideas in a new context often involves trying something new and then adjusting in the light of experience | Mulgan et al. (2016) |
| Know-how | Skills to assess the problem (taught) Skills to find effective solutions to the problem that are appropriate to the setting (practical experience of what works and what doesn't) | Dearing (2000) |
| Investment | Innovations require substantial investment – money, people, personnel, infrastructure – to get off the ground and be sustained | Dearing (2000) |
| Containment of risks | Innovation is protected from risks by, for example, by implementing small-scale pilot projects, sustaining investment for extended periods, and managing the expectations of stakeholders by acknowledging the possibility of failure | Mulgan et al. (2016) |

Table 3: Examples of barriers and factors that can cause the failure of governance innovations

| Barriers and failure factors | Description | Reference examples |
|---|---|---|
| Flawed idea or design | Too expensive, not good enough relative to the alternatives, or flawed by unforeseen side-effects | Mulgan et al. 2006 |
| Unsustainable finances or lacking resources | Implementing governance innovations can be resource intensive and investment is likely to be required for a sustained period while new approaches become embedded | Fortnam, 2017 |
| Vested interests | Powerful individuals, groups and organisations will resist an innovation if it threatens their economic or personal interests, especially if they have invested their resources in technologies and practices that become outlawed | Mulgan et al. 2006; Pelling, 2010; Gelcich et al. 2010; Fortnam, 2017 |
| Entrenched behaviours and attitudes | Changes in behaviours and attitudes are often required for innovations to be sustained, but this is notoriously difficult to achieve. For example, fishers may have used a destructive gear for generations and be unwilling to change | Fortnam, 2017 |
| Culture, worldviews and identity | Meta order of governance points to the underlying principles and worldviews that people have, which are often linked to culture and identity. If an innovation goes against this, without changing it, it can be destined to fail. For example, fishers do not often pursue alternative livelihoods as they have a strong identity as fishers | Rip and Kemp (1998); Geels (2011); Marshall et al. (2012) |

| | | |
|--|---|-----------------------------------|
| Underlying trends and drivers | May overwhelm efforts to address a problem. For example, the spillover benefits of MPAs for fishers may be offset by increased fishing effort associated with population growth | Rip and Kemp (1998); Geels (2011) |
| Incompatible legal and policy frameworks | A lack of institutional support for an innovation may mean: laws and policies promote practices and behaviours that are incompatible with the goals of the management approach, or lack of sustainable financing as national agencies do not have a legal or policy mandate to allocate resources to support the innovation | Mulgan et al. 2006; Fortnam, 2017 |

2.5 Summary

- Governance involves **interactions between many, diverse actors** – public, private and civil society – to solve problems and create opportunities.
- **Three orders of governance** are recognised: day-to-day management and problem solving (first order) are guided by statutory and customary institutions (second order), which, in turn, are guided by underlying societal principles, ethics, values and norms (meta or third order). These orders and components of governance systems interact and change over time.
- Patterns of interactions can be categorised into **three modes of governance**: self-governance (individuals and groups govern their own activities); hierarchical governance (top-down state interventions); and co-governance (state and non-state partners work together).
- Multiple **management models** exist, but they need to be **adapted to fit the socio-political, economic and cultural context** when implemented in practice.
- The adoption of new ideas for governing the marine environment and the reworking of them to be applicable to a new place can be described as **marine governance innovation**.
- Marine governance innovations can be analysed to **identify factors and mechanisms that drive or hinder their uptake, implementation and sustainability**. Lessons learnt can inform the design and implementation of future marine projects and initiatives.

3. The PMGA process

The Participatory Marine Governance Analysis (PMGA) approach aims to:

- Enable key stakeholders to systematically analyse the governance context within which they are working.
- Facilitate reflection and learning about current and past governance innovations to improve the performance of marine governance in the future.

The approach is based on two underlying principles:

- The **inclusion of all actor groups**, and creating and maintaining relationships between them, will enhance the legitimacy and effectiveness of marine governance.
- **Learning and adapting** is essential to continuously improve marine governance.

The PMGA is participatory, involving researchers, practitioners and stakeholders working together to understand problems and find solutions. Three key tools for analysing marine governance processes

are introduced: (i) Institutional Analysis; (ii) Innovation Histories; and (iii) actor network mapping (Net-Map).

Figure 2 outlines the PMGA process.



Figure 2: The PMGA process

3.1 Principles

3.1.1 Inclusiveness

Section 2 emphasised that a diverse range of actors are likely to be directly and indirectly involved in marine governance. Even if stakeholders are not formally involved in governance, they will already be influencing it in different ways. For example, consider the influence of a group of fishers that inadvertently or deliberately does not comply with fisheries laws. To be effective, governance needs to be inclusive of these groups and strengthen linkages between them. Benefits of including a diverse range of actors include (Bavinck et al., 2005):

- Increased knowledge and experience
- Better understanding of problems
- A greater number of ideas and perspectives to generate innovation around potential solutions
- Improved legitimacy of governance, which could reduce cost of enforcement and compliance
- A more socially just approach that includes stakeholders that are impacted by decisions

Given this, the PMGA emphasises the importance of identifying and understanding the interactions amongst stakeholders and their diverse perspectives on problems and solutions. The Net-Map method will allow you to identify stakeholders, their relationships (positive and negative) and the processes that facilitate and block these relationships. It will also help you to understand the capacities and power of stakeholders to influence governance, and how and why some stakeholders are marginalised in decision-making.

3.1.2 Learning and adapting

The PMGA is also based on the view that developing capacities to learn and adapt will improve the performance of marine governance. Marine environments are highly complex and unpredictable due to ecological dynamics, external drivers of change (e.g. climate change) and perturbations (e.g. mass coral bleaching), and because of the diversity of sectors and actors, who have variable interests and views of the world. Under such circumstances, it is often impossible to create a plan, develop institutions, and create management tools in one go that will work in practice. This is especially true when marine management models (Section 2) are introduced to a new place with a different social, political, economic context to where they had previously been applied. Monitoring progress and evaluating and learning from past initiatives therefore have the benefits of:

- Providing flexibility to adapt to changing circumstances by drawing upon information and experiences of a diverse range of actors.
- Allowing stakeholders the opportunity to hear perspectives, knowledge and experiences about a process from the point of view of other stakeholders, who may have been involved in the process at different places or at different times.
- Learning from the past can improve the performance of governance innovations in the future.

3.2 Introducing the analytical tools

- **Institutional/policy analysis** involves desk research and key informant interviews to document and analyse the wider legal and policy framework influencing the governance of the marine reserve or park under study.
- The **Innovation Histories method** facilitates discussion, reflection and learning amongst stakeholders that were involved in the initiation and implementation of new approaches or models of marine management.
- The **actor network mapping**, known as **Net-Map**, aims to visualise and analyse the relationships between stakeholders/actors involved in or affected by a marine governance innovation.

Figure 3 illustrates how the institutional/policy analysis records the **bigger governance picture**, the innovation history learns from **past** processes of change in governance, and Net-Map analyses the **current** relationships and distribution of power within the governance system.

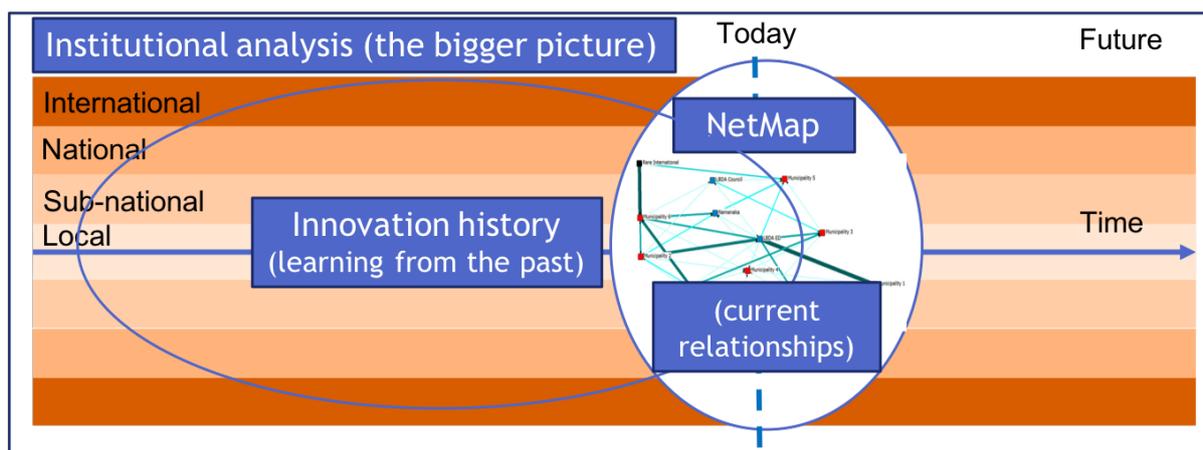


Figure 3: Analytical tools

3.3 Doing participatory research

Innovation Histories and Net-Map are participatory methods. This section provides a basic introduction to participatory research to outline the underlying principles to implementing these analytical tools.

Participatory research involves planning and conducting research collaboratively between researchers and those people whose daily lives are under study. Importantly, researchers hand over power to research participants, with the aims and research questions of a study being shaped by the perspectives of both science and practice. Participating stakeholders analyse and reflect on the information generated themselves, in order to co-produce the findings and conclusions of the research.

The co-production of knowledge by researchers and practitioners offers benefits to both. Stakeholders can take a step back from their familiar daily routines to reflect on, question and rethink their situation and strategies. For researchers, the participation of stakeholders has the benefit of revealing new perspectives, potentially outside of established theory, that can help their research better meet the needs of practitioners and be more likely to generate solutions and promote actions to address real-world problems (Bergold and Thoma, 2012; Aldridge, 2016).

When designing how you will apply the analytical tools of this manual, you will need to consider three important aspects of doing participatory research (adapted from Bergold and Thoma, 2012):

The need for a 'safe space': Participants must be willing to discuss their personal views, opinions and experiences. This openness is rarely displayed in formal settings with colleagues or collaborators because there is a fear of being confronted for contradicting others. A safe space is therefore needed for participants to speak freely without what they say being used against them or them being disadvantaged by expressing something critical.

Who participates? There are generally two groups of stakeholder that work with academic researchers in participatory research: (i) professional practitioners (e.g., NGO staff); and (ii) the immediately affected people (e.g., coastal communities), which may include marginalised groups whose views are not normally considered. When working with the second group, a decision must be made about which persons or groups to involve. Selecting the right groups is important because participatory research aims to shed light on different

knowledge and perspectives. Creating a safe space for marginalised groups to speak out is therefore especially important.

What degree of participation? Decisions need to be made over the degree to which stakeholders (your co-researchers) participate in the research. Key stakeholders must be involved in decisions over the study otherwise it is not participatory research. Spending considerable time with and building relationships amongst co-researchers and participants is important for establishing trust.

What are your experiences of doing participatory research? What worked well? What was challenging or unsuccessful?

3.4 Assembling the team

You will need to identify key members of your own facilitation and fieldwork team so that the right people are trained in PMGA. Ideally your team will involve a key stakeholder who can receive training in order to be an active co-researcher. You should also consider what organisation(s) and individuals might be champions of the research so that its findings are incorporated into current and future marine management initiatives.

3.4.1 Project champion

Identifying someone who is interested in and willing to champion the governance analysis will increase the likelihood that the research meets needs and learning/findings are disseminated and used in current and future marine management. Such a champion needs to value the importance of evaluating and learning from past and current marine management in order to improve it in the future. Ideally, they should be a senior manager at a key organisation or a group of several senior figures from more than one organisation who have the power to bring about changes in response to learning from the project.

The champion(s):

- Approves the purpose and scope of the research (including the innovation(s) you decide to study)
- Evaluates the final document that presents the findings of the research
- Disseminates and acts upon the document and its findings.

3.4.2 Your facilitation team

The innovation history method emphasises the importance of combining **outsider perspectives** (i.e. the researchers/facilitators who were not directly involved) and **insider perspectives** (e.g. the stakeholders who were involved in bringing about change to marine governance, such as a zoning process or the establishment of the reserve/park).

Outsiders

The outsiders (e.g. academic researchers, independent consultants, technical advisors) can provide technical support and facilitation. They can ask questions (practical and theoretical) and reflect on the outcomes of the research without the bias gained from having participated in the governance innovation.

Preferred skills, experiences and characteristics of outsiders:

- Desk-based research skills (for policy and institutional analysis)
- Knowledge of marine issues, coastal marine management and social problems (e.g. poverty, marginalisation)
- Facilitation of participatory processes to sensitively ensure participation of all stakeholders in group settings, create a trusting and open atmosphere amongst participants, and ensure the process runs smoothly
- Gender and diversity to ensure sensitive facilitation and to ensure all stakeholders are given voice
- Conflict management to help participants accept diverse perspectives and opinions, and to find conclusions and/or consensus
- Qualitative interviewing, able to listen, note-take and ask questions that reveal additional information and deeper reflection
- Writing skills to present and communicate findings coherently and concisely so that they can be incorporated into policy and existing and new projects.

Insiders

The insiders in the facilitation team are those who initiated, implemented and participated in bringing about change. They are knowledgeable insiders who can reflect on the purpose of the research and the results. It could, for example, be staff from the NGO or government agency that led the process of marine zoning or the establishment of the marine reserve/park authority. These insiders are included as researchers because they will:

- Be able to reflect on workshop outcomes during analysis stages, giving them additional meaning
- Build their capacity to critically reflect on the current governance context and therefore their capacity to improve it in the future
- Own and understand the outcomes of the research, making them more likely to make use of new insights in their future work in the reserve or park.

The insiders will be involved in the creative work of facilitating workshops, interviewing and writing. They may not do the writing up of data, but they will need to carefully edit and make in-depth corrections from a pragmatic and analytical standpoint.

When deciding upon who to invite as your insider co-researcher, consider the following questions:

1. Did they initiate, implement or participate in initiating and implementing the marine governance innovation in your case study?
2. Are they knowledgeable of marine governance innovation?
3. Are they someone you would like to invest in as part of your capacity-building objectives?
4. Since significant amounts of time will need to be allocated to the research, do they have availability and permission from their organisation to assist with it?
5. Will stakeholder participants feel comfortable talking and voicing their opinions in front of the insider?
6. Do they have access to and the trust of key people, or the opportunity to build that trust?

7. Do they have relevant skills, such as workshop facilitation, note-taking, interviewing and writing?
8. Are they interested in documenting and learning from past and current experiences of implementation to improve marine governance in the future?

3.5 Clarifying the purpose and objectives of research

Once you have assembled your core team – your facilitation/fieldwork team and a project champion – it is then valuable to begin to clarify stakeholder expectations more broadly. Discussion with key stakeholders on conducting the research is an important process for participatory research. For example, stakeholders may support research that aims to: learn from experience and draw lessons for improving marine planning; build the capacity of the core team and stakeholders in critical reflection; document success for communication materials, and/or publish research on the innovation process and the application of marine planning. In some contexts, there may be resistance to considering past and current problems because of a wariness of reputational risk. You will need to build awareness and acceptance of the value of learning before being able to proceed with the research to avoid antagonising key stakeholders.

3.6 Participant selection and recruitment

Selecting the right stakeholders to include in the full research process so that marginalised voices are not excluded is a key task. Stakeholders must be purposefully selected by the core group based on the relevance of their knowledge and experience of participating in the marine governance innovation process, and their representativeness – the aim is to have multiple perspectives on what happened.

Stakeholders can be selected using several sources:

1. The knowledge of key partner organisations and champions
2. A Net-Map interview conducted with 1-2 key individuals to initially map out stakeholders of the marine governance innovation
3. Net-Map and Innovation Histories workshops and interviews in the field to identify further stakeholders to include in the research process – a snowball approach to identifying research participants.

The recruitment of participants should be undertaken through cooperation with your champion and other relevant key stakeholders.

3.7 Creating a safe space

To create a safe space, it will be necessary to consider power dynamics and conflicts within the group of participants you have identified, which could hinder some individuals from fully participating. By being aware of these, workshops can be designed to ensure all participants can have a voice. The Net-Map created with a key individual at the beginning of the research will reveal, from their perspective, problem relationships between stakeholders and how influential each stakeholder is in relation to others. This information can help to spot potential risks of certain stakeholders not speaking freely in front of others, either because they are in conflict or because of issues of social class, identity and influence that may make some stakeholders feel uncomfortable.

When designing the research, you may want to address these issues by, for example:

- Running separate workshops with different stakeholder groups

- Sub-dividing participants at workshops into similar stakeholder groups to construct timelines and, later, coming together to reflect on lessons learnt with the entire group
- Holding one-to-one interviews with especially influential stakeholders rather than inviting them to the workshop – they may be busy and prefer this anyway.

The location of workshops and interviews can also be important for creating a safe space. Some participants will feel more comfortable if a workshop or interview is held in a familiar or less formal place.

3.8 Resourcing

To ensure that lower income groups can participate in the research, it is necessary to resource their involvement (e.g. travel to workshop, accommodation, subsistence). The funding of the expenses of better resourced groups should be according to customs and practices in your context. The remuneration should recognise the contribution participants/co-researchers are making to the research.

Importantly, remuneration should be consistent across workshops to ensure it is fair. We suggest the amount paid should not exceed the average paid by previous and other research projects to ensure your research does not raise the expectations of participants and make remuneration unaffordable for future research projects.

Ensure the involvement of select participants in analysis validation and the dissemination of findings is factored into budgets from the outset.

3.9 Ethics and consent

Ethics are important in social research to protect the rights of participants and others who may be affected, to ensure data are collected with integrity, and to provide critical reflection on the views and values of the researcher (May, 2011). Prioritising ethics in research design and implementation means that decisions should be made on moral grounds rather than it being the easiest way, since a researcher has no fundamental right to carry out a study.

Research ethics are especially important in participatory research because of the close interactions between researchers and stakeholders. Ultimately, the research should not result in harm to participants and should ensure their privacy.

You need to be clear about:

- Rules for dealing with participants
- How data is collected, stored and used
- The availability and timeframe of the professional researcher.

By building trust, participatory research can reach deeper, normally taboo topics. This carries the risk of causing serious harm to participants if their views are shared beyond the safe space without being anonymised. Even the dissemination of findings on taboo topics may have negative consequences for some participants. Once disseminated, it is not always possible to control how findings are interpreted or communicated (e.g. in the media). There are also ethical implications of the research resulting in actions that may benefit some while disadvantaging others.

Key best practices to follow are:

- Outline the purpose and information about the research in invitation emails or letters to participants
- Treat data as anonymous and confidential. Keep data and participants' personal information (e.g., contact details) safe and secure
- Get consent from participants to join the research and make them aware that participation is entirely voluntary and that they can end their participation in the research at any stage (see participant information and consent forms, Annex 1)
- Ensure there are no implications on the physical or mental health of participants ('do no harm').

3.10 Data ownership

Intellectual property policy can help to establish who owns the data produced from your research. Ownership of the knowledge generated through participatory research differs from traditional social research. There is the responsibility to make the findings accessible and useful for the research participants.

4. Tool 1: Institutional analysis

Before starting fieldwork, it is important to know the bigger picture. Sources of information on the status of and trends in the marine environment, and the current institutional context, are available in:

- Scientific journals (some are open access while others require subscriptions; search using <https://scholar.google.co.uk>)
- Reports written by government departments and NGOs.

These resources, supplemented with key informant interviews, will enable you to do **organisation mapping** of national and subnational organisations and **policy analysis** of the legal and policy frameworks that influence marine management and the success of your marine governance innovation.

4.1 Organisation mapping

An organisation mapping exercise can be useful for understanding who is involved and who does what in marine governance nationally and sub-nationally. Key issues to research are:

- Which organisations (government and non-government) are involved in or interested in issues and problems related to marine governance?
- What are the key policy and strategy documents that guide their work?
- What is the organisation or institution's level of influence on marine governance nationally?
- What are the relationships with other organisations?
- How do the mandates of organisations overlap and where are there gaps?

4.2 Policy analysis

Decisions made by governments can either help or hinder marine governance innovations. A policy analysis can help to identify key national legislation and policies that either provide an enabling

environment for your marine governance innovation or, conversely, incentivise practices, activities and behaviour that are counter-productive or misalign with the goals of the innovation. It is important to understand this national context to understand how this affects the governance innovation(s) and actor network studied through the two participatory methods outlined below.

A policy analysis can be undertaken by documenting existing policies and legislation and by reading government reports and websites. However, these often present a positive picture of the situation that is quite different to what has been implemented and experienced in practice. Existing studies in the academic and grey literature may highlight some of the current issues, but it can be useful to interview key informants who can clarify and reflect on the current state of policy and legislation implementation.

Key informants at the national/sub-national level are likely to include:

- Staff at relevant national fisheries, and at environment, natural resource management, agriculture agencies and departments; officials involved in national economic and social development initiatives (e.g., healthcare in coastal communities); government representatives at local, municipal, district or provincial level
- Civil society/NGO representatives engaged in policy advocacy on the marine environment
- Representatives of relevant donor agencies
- Academic or policy researchers with expertise in sectors relevant to the marine environment.

Annex 2 provides tips on interviewing and note-taking.

Which key informants would provide important information on the broader institutional context of your reserve/park?

5. Tool 2: (Governance) Innovation Histories

Adapted from Douthwaite and Ashby (2005), Abernethy et al. (2014) and Fortnam (2017)

The Innovation Histories method involves recording and reflecting on an innovation process. For the PMGA, the innovation refers to the process of specific institutional arrangements being introduced and developed to improve the management of the marine environment. People who participated in the innovation process will construct a detailed written and visual account based on their memories and available documents. The preparation of the history stimulates discussion, reflection and learning amongst stakeholders.

The method aims to enable those that were involved to reflect on their own actions and experiences, how these linked to the actions of other people and organisations, and how to use their experiences to improve the performance of the marine governance innovation in the future.

Organisations in other localities can also learn from the innovation history to improve their design and implementation of a similar marine governance innovations.

5.1. Identifying the innovation

Identifying an innovation to study is an important first step. You need to **be clear about what innovation you intend to study**. Marine management often involves multiple innovations introduced at different times (e.g. marine protected areas, new fishing gear, behaviour change programmes). The innovation process should have at least **reached the point where ideas have been adopted and/or new institutions/management designed**.

Some innovations are large-scale, such as the zoning of a marine park or the shift to an integrated approach, for instance integrated coastal management or an ecosystem approach to fisheries management. Other innovations are smaller-scale, such as a shift to community-based resource management or the development of sustainable livelihoods in a community. The innovation you choose will determine the stakeholders invited to participate in the research as they will need to have been involved in some way and be knowledgeable about it.

Consult with your champion

The study should benefit ongoing marine management efforts. If you do not have a predetermined innovation to study, consult with your key partner stakeholder (or 'champion', see Section 3.4.1) to find out what past initiatives they would like to evaluate and learn from to help their current and future work. You will need to ask them questions like:

- What past initiatives in the reserve/park would you like to learn lessons from?
- What questions do you want answered?
- What challenges have you faced during past initiatives that you would like to understand?

5.2 Constructing the innovation history timeline

The Innovation Histories process records and explains a timeline of key events in the innovation's history. Key events can include, for example: important decisions, important meetings, actions and activities, changes in relationships, when something new was learnt, problems and challenges, and when something unexpected happened.

5.2.1 Workshop

The first draft of the timeline can be constructed at a workshop. Annex 2 provides tips for workshop facilitation and note-taking, while Annex 3 provides a template agenda for such a workshop. Participants from each stakeholder group (i) post key events onto a timeline, and discuss (ii) who the event involved; (iii) who were the winners and losers resulting from an event; (iv) which were the most important events, and (v) important themes and lessons learnt that they want to investigate further. The participants decide who needs to be interviewed and identify available literature to give further detail and explanation about the timeline. The discussion of who was involved in events on the timeline can identify people to interview who were not in attendance at the workshop.

At the end of the workshop, make time for participants to complete a workshop evaluation form (Annex 4) so you can review their learning and make improvements to the workshop in the future. After the workshop, bring the facilitation team together to record preliminary thoughts on the factors and strategies that enabled and blocked the initiation and implementation of the governance innovation, using the template analysis form in Annex 5.

5.2.2 Interviews

Interviews are held later with a selection of participants who attended the workshop and those identified as important but not in attendance. The interviews involve a discussion of the timeline developed at the workshop. The interviewer asks for (i) the identification of new events to add to the timeline, and (ii) more information about the events. Questions that can be asked to prompt discussion when a new event is added include: Why was the event important? Who was involved? Why were they involved? How did they contribute or participate? What were the results? Who disagreed with, opposed, or lost out? Lastly, the interviewee is asked what, in their opinion, are the top three most important events and why; this will help you to find key turning points or factors in the innovation history that enabled or hindered its successful implementation. Annex 6 provides a template of innovation history interview protocol.

Note, other methods such as focus group discussions can also be used to uncover important events, actors and outcomes on the innovation history timeline. The most appropriate set of methods will depend on: the innovation(s) identified; the specific opportunities and sensitivities of your particular context; and the time and resource you have available.

5.3 Analysis

5.3.1 Two-column learning history document

The information collected from the workshops, interviews and other methods can be written up in a two-column learning history (Figure 4). An event in the timeline is introduced. After this, the text is split into two columns. In the right column, interesting quotes and paraphrases from interviewees about the event are recorded. In the left column, the reflections of the core team are recorded, including: (i) why a particular quote was chosen; (ii) interpretation of the meaning of what was said; and (iii) a larger perspective, e.g. what it tells us about the factors that support or block the implementation of the innovation. The same format is repeated for the next event, until a document containing all the key events has been compiled.

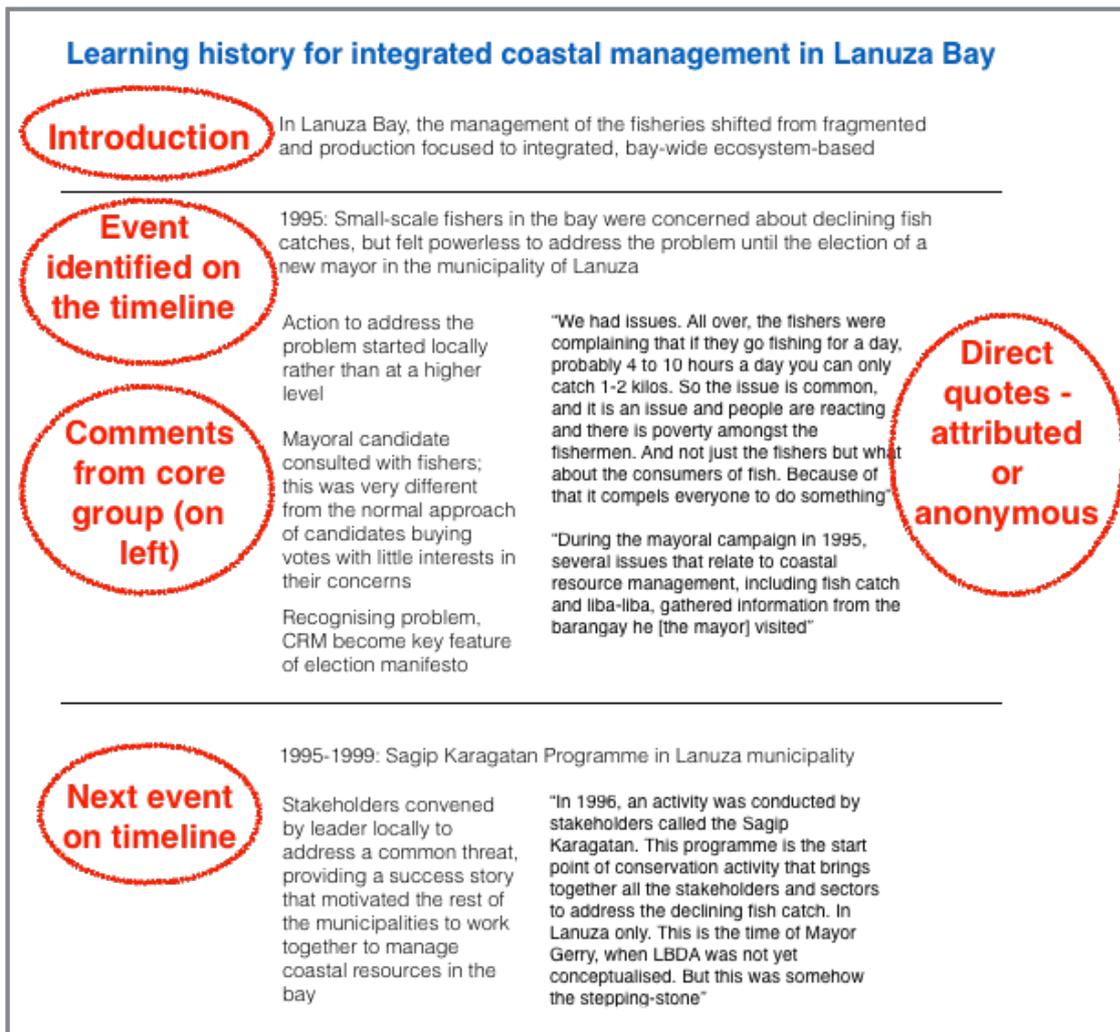


Figure 4: Extract of a two-column learning history report used to analyse qualitative data

5.3.2 Simplified timeline

You may have more than one timeline recorded on flipchart paper if you held breakout groups and added additional events to the workshop timeline during interviews. Combining these into a single timeline can help with qualitatively analysing the connections between events. This could be done on paper or using timeline software. Aeon Timeline is software designed to be a tool for fictional writers, but can serve as a useful qualitative analytical tool, allowing associated temporal data to be organised and visualised. Using the software, events can be associated with:

- One or more entities, such as a person/organisation (i.e. actors)
- Themes (e.g. type of event, such as 'a decision was made')
- Sub-narratives (referred to as arcs) of each municipality

Events on the timeline can be colour coded according to event type (described above) and assigned to a level (e.g. national or local). In this way, multi-levelled timelines can be developed to enable connections between the different levels to be analysed qualitatively (e.g. a national law led to a local-level event). The timelines (figure 5) can be printed on paper to present to interviewees during the innovation history interviews as a means of structuring the interview and validating the events, and the timeline updated iteratively.

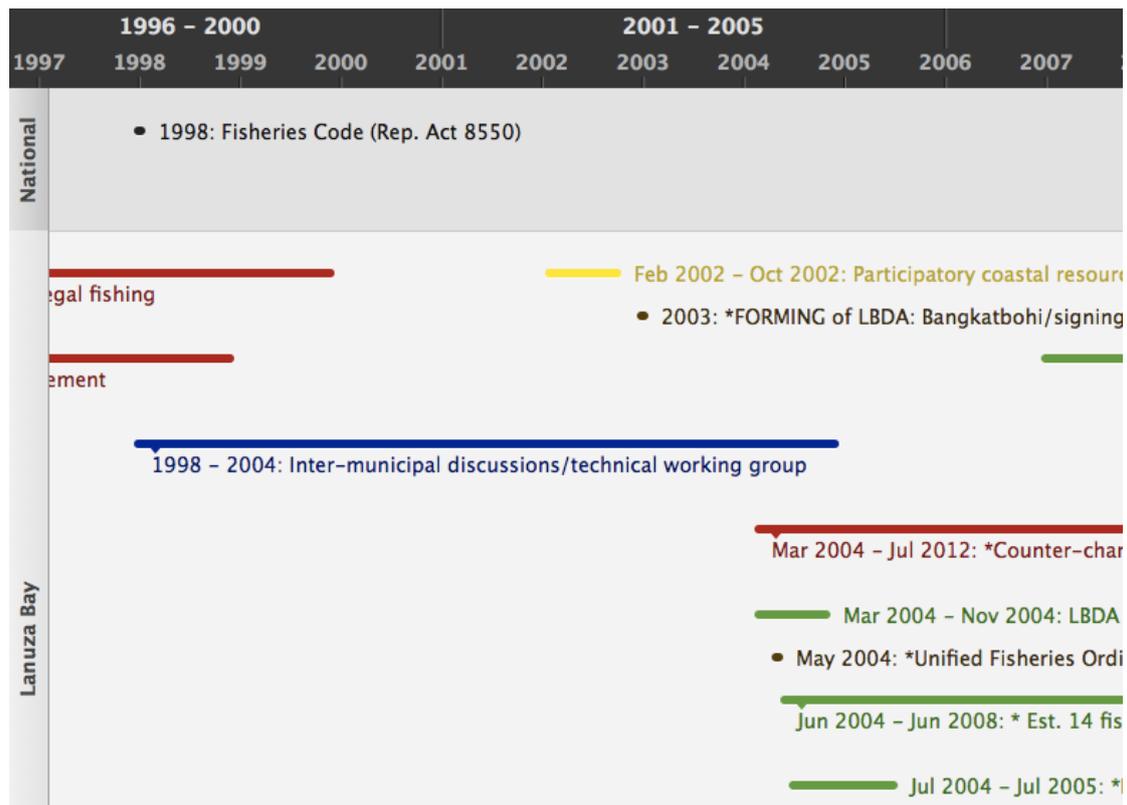


Figure 5: Sample extract from innovation history timeline visualised in Aeon. Different colours represent different types of event. Two levels are shown on Y-axis, but a timeline was also generated for municipalities.

6. Tool 3: Actor network mapping – Net-Map

Adapted from Schiffer (2007) and Fortnam (2018)

Many stakeholders are involved in the governance of the marine environment. These stakeholders are tied together by formal institutions, such as laws, management bodies and agreements to work in partnership, but also by customary (informal) institutions, such as kinship, family and other bonds. For an outsider, understanding these relationships can be very tricky, yet revealing these relationships is important as they can have a profound effect on the design, implementation and outcomes of marine governance innovations.

It is also important to analyse power to understand who has more or less influence over decision-making processes. People or organisations can be influential because they have control over resources (e.g. financial or human), such as donors and government agencies, or because they have an important job or position, such as an elected official or community leader. Others are influential because they are a trusted source of information or advice, or simply because they are liked or respected. They may have wide-level influence, for example, over the content of reserve management plans, or they may have specific or focused influence over particular groups, for instance someone who is listened to by young fishers or women's groups.

Net-Map is a tool that “helps people understand, visualise, discuss, and improve situations in which many actors influence outcomes” (Schiffer, 2007, p.3). It is a step-by-step process for mapping out relationships and understanding the differential influence of actors on a policy domain, such as

marine planning. The main purpose of visualising the relationships between stakeholders is to stimulate discussion amongst participants about important, challenging and absent relationships.

Understanding the relationships between actors can help explain why certain individuals or organisations played a critical role in enabling or hindering the implementation of the innovation. If desired, separate Net-Maps can be drawn for networks of actors that have (i) a positive influence and (ii) a negative influence on the innovation process. A Net-Map of those having a negative influence can reveal coalitions of vested interests that intentionally or unintentionally use their relationships to block marine governance innovations. Annex 6 provides a template interview protocol for a Net-Map interview, but the exercise can also be held as a focus group/workshop.

[You can read about and watch a short video about the Net-Map method here](#)

6.1. Planning for a Net-Map analysis

Before conducting Net-Map data collection, clarify the focus of the research:

- Define the question (e.g. Who can influence the success of the MPA management plan?)
- Define links/relationships of interest (e.g. giving and receiving resources, formal lines of command, giving and receiving advice and information. Assign colours to the different relationships).

6.2. Creating a Net-Map

a) Actor identification

- I. Ask: **“Who is involved in, influences, or is impacted by [the governance innovation]?”**
- II. Write the names on actor cards and distribute them across the empty Net-Map sheet (Figure 6). It can be helpful to use different coloured cards to represent different types of actor (e.g., government, NGO, community).



Figure 6: Names of actors written on cards and spread out on sheet of paper

Source: Schiffer (2007)

b) Drawing of links/relationships

- I. Ask **“Who is linked to whom?”** Go through the different kinds of link one by one (e.g. “Who gives resources to whom?”, “Who gives advice to whom?”)
- II. Draw arrows between the actors according to the directions indicated by the participants (Figure 7)
- III. If actors exchange something (e.g. information), draw double-headed arrows. If actors exchange more than one thing, add different coloured arrow-heads to existing links.

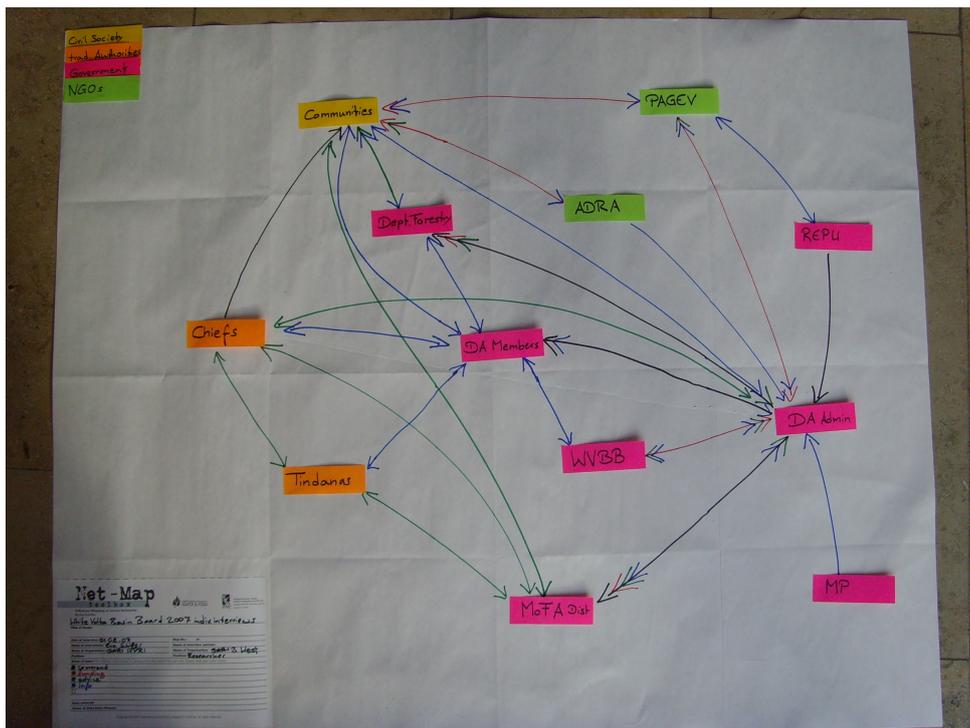


Figure 7: Drawing arrows between actor cards to represent relationships/links

Source: Schiffer (2007)

c) Influence towers

- I. Ask: **“How strongly can actors influence [e.g. the success of the innovation]?”**
- II. Explain/agree on a definition of influence with your interviewee/group, clarifying that this is about influence on the success of the innovation and not their influence in the world at large.
- III. Ask interviewee/group to discuss and assign influence towers to actors (Figure 8): the higher the influence on the issue at stake, the higher the tower. Towers of different actors can be of the same height. Actors with no influence can be placed at ground level. Towers can be as high as interviewees want. There will be a limited number of counters in your set, but it is the relative difference between the height of the towers that is important.
- IV. Place influence towers next to actor cards.
- V. Verbalize how the participants have distributed the influence towers (e.g. “you have identified this actor as the most influential”) and give participants the opportunity to adjust

towers before writing the number of counters in the tower on the Net-Map paper (important for documentation purposes).



Figure 8: Participant stacking influence towers

Source: Fortnam (2018)

d) Discussion

- Ask prepared questions associated with the goal of the Net-Map exercise. For example, questions can be asked about the most important relationships, where there are problematic relationships, why actors are the most influential or least influential, what happens to resolve conflicting goals, how could relationships between actors be improved, who should be involved in decision-making who is not here today etc.
- This is a critical step for collecting qualitative data about the Net-Map. Notes should be taken to capture all discussions.

6.3 Analysis

Interviews or workshops can be digitally recorded and/or notes taken on discussions (see Annex 2 for note-taking tips). Straight afterwards, use the notes and the fresh recollections of the facilitation team to undertake a preliminary analysis. Annex 7 provides a form that the team can use to structure the writing or typing up of notes. For in-depth analysis, digital recordings of the workshops and interviews can be transcribed word for word within one week of the interview or workshop, and then thematically coded (techniques introduced in Annex 8). However, always take notes since the participants will point at the Net-Map on the flipchart paper; audio recordings of participant discussion can, at times, be difficult to understand at a later date.

When reviewing the data, you should consider which actors are marginalised or excluded from the map and/or from decision-making and which are perceived to be the most influential and why. For example, they could be central in the social network for giving out and receiving information and/or advice, or they may control how resources are used. You may also analyse how the social, political and cultural context shapes the relationships between actors. **Importantly, you will need to present in-depth analysis of conflicts between actors, and the reflections of participants on how the social network could be improved.**

7. Meta-analysis, validation and documenting the analysis

The three tools will each produce outputs that need to be analysed and compiled into a draft report for validation by stakeholders, before being finalised and published.

7.1 Meta-analysis

From the three tools you will have:

- Desk review of organisations and policies
- Analysis forms from Innovation Histories and Net-Map workshops and interviews
- Innovation history learning report and timeline
- Photographs of actor maps drawn by participants.

When analysing across these outputs, you are broadly looking to find factors and strategies that either enabled or hindered the successful development and implementation of your innovation. Refer to Tables 2 and 3 for a list of such factors drawn from the literature. However, other interesting findings should be identified too.

You would have already begun the analysis process, because:

- As the research is participatory, participants at the workshops and interviews discussed and reflected on what is most important and the lessons that can be drawn. This should have identified important themes in your data from their perspective.
- In the learning history report you added your interpretation of quotes and gave them meaning.
- The analysis forms made you structure the write-up around predetermined themes.

Building on this, the depth of further analysis to undertake will depend on the skillset of the facilitation team and the time available to conduct the analysis. The following options for analysis are suggested, in order of increasing depth and complexity:

1. Simply review all your outputs and write them up in the report structure below or similar. You will be immersed in the data and able to interpret the findings without further analysis.
2. Conduct qualitative analysis across the outputs using thematic coding (using paper and pens or qualitative data analysis software). This is introduced in Annex 8.
3. In addition to qualitative analysis, Net-Map generates quantitative data on relationships that can be analysed using social network analysis (SNA) techniques, whereby the Net-Map is converted into matrices and then analysed using a social network mapping software such as InFlow, Pajek or UCINET. Such an analysis can enable you to examine, for example, how many other actors (nodes) an individual actor is connected with (degree centrality). High-degree centrality is associated with an actor being able to mobilise stakeholders to action and diffuse information – providing insights on the power of actors to bring about or block the innovation. However, it is beyond the scope of this handbook to provide instruction on social network analysis.

7.2. Documenting the analysis

The following structure is one way of writing up a report or publication from the research (adapted from Douthwaite and Ashby, 2005). However, there may be particular themes that a publication can document, such as the role of leadership, and based on the coding a different structure may be more appropriate.

1. Introduction – describes the background to the innovation and the rationale for creating the innovation history and Net-Map, and explains why this approach is useful.
2. Methodology – describes the framework used and the data-gathering methods.
3. Case study – this is the body of the report; the narrative describing what actually happened based on the timeline and actor network maps. Summarise the innovation history and the relationships between actors.
4. Discussion and conclusions – use your codes to structure a description of the factors that fostered and constrained the innovation process. Compare these findings with existing literature, including that summarized in Section 2 of the manual.
5. Synthesis – compares and contrasts the main findings from each case study (if there is more than one) or discusses the implications of the findings for the project or future similar projects.

7.3 Validating the analysis

After the analysis, a presentation can be made to, and/or draft report shared with, stakeholders to gather their feedback and to ensure that the findings align with their understanding. This could be done through focus groups or meetings, providing opportunities for questions to be asked and comments made. Record the feedback and adapt the final report accordingly.

The validation activity can also provide an opportunity to ask questions to fill information gaps or request secondary research and data to substantiate your findings. You may want to also facilitate a discussion on next steps or to develop policy recommendations.

8. Using the analysis

This section of the handbook makes some high-level suggestions on how the analysis can be used, but how the analysis is used will depend on your needs and the appropriate ways of communications in your context of work.

8.1 Disseminating the findings

A critical role of the facilitation group is to disseminate findings amongst organisations involved in marine management in the context in which you are working. For *insider* members of the team, they can disseminate findings within their respective organisations. External dissemination (e.g. through workshops, journal papers and briefing notes) is crucial to influence marine policy and planning processes. This step should be planned and budgeted for at the beginning of the project.

Key outputs from your analysis could include:

- Posters, blogs, and summaries and presentations to communities
- A policy briefing report to policy-makers describing the key findings
- A scientific publication.

In order for the findings to be understandable to all and reach a wide audience, as well as to increase the chances that the research will trigger further discussion and action, it can also help to

use alternative forms of dissemination – such as visual or performance. The retelling of findings in a different medium can also provide an opportunity for validating the findings.

8.2 Using the analysis to catalyse change

The PMGA will provide you with insights into the policy and institutional issues that both constrain and enable the successful implementation of the marine governance innovation. You will also have findings on inequalities between stakeholders that make certain groups more or less influential in decision-making and more or less willing to support the innovation.

You will have an overview of what enabling factors must be in place for marine management approaches to be sustained and to increase their effectiveness going forward. You will also know potential risks, obstacles and barriers that need to be mitigated to improve management performance and sustainability. This information will be invaluable for the planning of future projects and initiatives, and point to institutional reforms that could result in promising current and future marine governance innovations being better supported.

8.2.1 *Advocacy and influencing national policy context*

The findings may point to the need to challenge existing policies and power structures to improve the effectiveness and fairness of marine governance. The understanding gained from the PMGA can provide a platform for designing advocacy campaigns by NGOs or for government partners to consider when designing future policy. This may target national policies that are unsupportive or incompatible with the implementation of a promising innovation. Alternatively, the findings could be fed back to local policy-makers for them to understand the consequences of the existing policy framework and opportunities for its improvement.

8.2.2 *Integrate into marine planning projects*

Integrating the findings of the PMGA into marine planning, conservation and development projects can increase the impact and sustainability of interventions. At the project level, this can include considering barriers and failure factors in project risk assessments and mitigation strategies. For example, identifying vested interests and sources of resistance can inform strategies to engage or compensate those that stand to lose out as a result of the introduction of future governance innovations. The findings can also be used to target and strengthen levers and enablers of success. For example, capacity development and information campaigns could be aimed at individuals identified in the Net-Map who can connect and bridge individuals and organisations. How to best use findings at the project level should be explored through consultations with your champion and key stakeholders.

8.2.3 *Further research*

Participatory research is a productive way of gathering information and insights on multiple perceptions. However, it is rarely sufficient to influence national policy alone. It is usually only applicable to the case examined and is often considered as anecdotal evidence by policy-makers. It can, however, provide the basis for larger-scale survey work by identifying questions for further investigation.

Annexes

Annex 1: Research ethics

The below is an example of a participant information sheet and consent form template used in the Blue Communities programme. A similar information sheet and consent form should be produced for participants involved in your PMGA.

Participant Information Sheet

[insert project title]

[insert title of research]

Researcher names: [insert names of research team]

Invitation and brief summary:

[Summarise project and invitation to participate]

Purpose of the research:

[Summarise purpose]

Why have I been approached?

[Rationale for inviting participants, e.g. relevant knowledge, experience of and participation in the marine governance innovation]

What would taking part involve?

[The activities involved]

What are the possible benefits of taking part?

[Why should they want to participate? E.g. training in governance analysis and insights for improving marine management]

What are the possible disadvantages and risks of taking part?

[Are there any risks or disadvantages, e.g. “barriers or potential management failings may be discussed, but these will not be attributed to individual participants and will be sensitively dealt with in regards to management organisations”]

“If there are any questions that the participants find too sensitive, they are welcome to not answer them or to stop the discussion.”]

What will happen if I don't want to carry on with the study?

[“You can stop taking part in the [interview, workshop] at any time without having to give a reason.

You can also ask to withdraw any information you provided from any analysis by speaking to the facilitators. From the point at which you withdraw, your data will not be included in any future analysis or publications. It will not be possible to remove anonymised data from analysis or publications that have been produced before you withdraw your data.”]

How will my information be kept confidential?

[Describe how you will store and process personal data according to relevant laws and your organisation’s protocols. Data should be kept on password-protected computers and stored in anonymised form, and a date given for when the data will be destroyed]

Will I receive any payment for taking part?

[Information about whether the project will pay for subsistence and other costs of participation]

What will happen to the results of this study?

[Describe how you plan to disseminate the findings and where outputs will be accessible]

Who is organising and funding this study?

[Be transparent about how the study is being funded]

Who has reviewed this study?

[If the project has been reviewed by an ethics committee or board, include the name and reference number]

Further information and contact details

[Add researcher/facilitator names and contact details]

[Also include a contact for the ethics committee and senior team members]

(Template) CONSENT FORM

Please note that if you have any unanswered questions about this study then you should NOT complete this form.

PLEASE PUT YOUR INITIAL IN ALL THE BOXES

| | | |
|----------|---|--|
| 1 | I confirm that I have read and understood the information sheet provided for the above study dated and have had the opportunity to discuss the study with the researcher. I do not have any further questions about this study. | |
| 2 | I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. | |
| 3 | I understand that the data collected during this study will remain strictly confidential and accessible only to appropriate members of the research team for a period of five years after the completion of the programme. | |
| 4 | I understand that data from this workshop/interview will be used in reports, academic publications, conferences, and teaching materials. | |
| 5 | I understand that parts of the workshop will be audio-recorded. | |
| 6 | I agree that my contact details can be kept securely and used by researchers from [name of organisation/programme] to contact me. I understand that these details will be deleted five years after the completion of the programme. | |
| 7 | I agree for any photos of me taken during the course of the workshop to be shared on social media platforms etc. for the project's purpose. | |

Name of Participant: _____

Date: _____ Signature: _____

Copies - 1 for participant; 1 for researcher

Workshop facilitation

Manage expectations

It is important to manage expectations during a participatory research process. Participatory research aims to support people and organisations to solve their own problems and identify opportunities for improving current marine management, rather than preparing for a development assistance project. There may be an expectation that the work will lead to a funded project or programme amongst participants, which may influence the issues that are raised in discussions. It is important to be aware of this and manage expectations when inviting participation and during the focus group introduction presentation.

Create and maintain a trusting and 'safe' space

- Allow a trusted community member or local representative to introduce the facilitation team
- Be gracious and welcoming
- Allow everyone to introduce themselves
- Ask permission to take photographs or video, and refrain if participants are uncomfortable with it
- Provide refreshments if appropriate
- Value participants' knowledge and experience
- Interrupt any 'attacks' or unreasonable confrontation
- Admit to and correct your errors
- Be impartial
- Allow time for participants to ask questions.

Animate and balance participation

- Ensure that the venue is conducive to participation
- Develop ground rules with the participants
- Explain the process and ensure that all understand instructions and questions.
- Support those that are timid, and gently silence those that take the floor too much or consider themselves 'experts'
- Find ways to allow people to drive the process (e.g. drawing the Net-Map themselves)
- Allow participants to raise issues, but keep the process on track. Ensure that you are moving quickly enough to cover the necessary ground in the time allocated. The final discussion sessions of the Innovation Histories and Net-Map are arguably the most critical, so you need to leave adequate time
- Probe for more information if the discussion is lagging, but try not to lead participants.

Finish gracefully

- Explain what the next steps are
- Schedule a time to return to validate the analysis
- Thank the group for their participation, and give an opportunity to ask questions
- If the participants would like to keep the products produced (e.g. the timeline and actor network map), make a copy (take a photo) and leave the original behind.

Semi-structured interviewing

Preparing

- Ask open-ended questions, not ones that can be answered with yes or no. They should also be worded to encourage the interviewee to provide detail and explanation (e.g., in your opinion...; using examples, could you explain...)
- Start with broad and uncontroversial questions to put the interviewee at ease and get the conversation flowing (e.g. a story about themselves or something that happened in the past, so that the interviewee understands that you want detailed answers to your questions)
- You do not have to only ask the questions prepared in advance; follow up with further questions, prompts or comments if you would like further information
- Questions may also evolve from one interview to the next as information becomes available
- It is useful to note in the margin of your interview schedule the time that you intend to spend on each question, to ensure that you do leave adequate time for the key questions, as discussions can get interesting, and out of hand!

During

- At the start, greet the interviewee, thank them for being interviewed and clearly state the aim of the interview
- Ask for their permission to record the interview and ensure them that the interview is anonymous
- Do not be tied to your list of questions. Listen, listen and ask follow-up questions
- Let the interviewee know you are listening by maintaining eye contact, nodding your head, leaning forward and taking notes
- Ask one question at a time. This isn't multiple choice
- Be patient. Don't break the silence with a new question. A few seconds' gap is likely to make an interviewee speak without requiring a prompt
- Respond to short answers with further questions or prompts to get more detail, and politely interrupt if a response becomes too rambling and off-topic.

Some useful probes to get more detail

[silence]

Tell me about...?

That's interesting, tell me more about that

Mmmmm

In what way?

[Repeat back the last few words of what they said or summarise, and then ask for more detail]

Useful polite interruptions if they are speaking for too long

That's very interesting, and I'd like to come back to that another time. But first can I ask you....

Finishing

- Finish the interview when you have enough information, when the conversation becomes repetitive, or when the interviewee is losing concentration
- At the end, always ask the interviewee if they would like to add or ask anything else, and thank them for their time.

Note-taking

The note-taker(s) play a critical role in the facilitation team. Without their notes, the method will lack all the detail necessary during analysis to get to the root of problems being discussed.

1. Even if you have a chance to record an interview, back it up with notes in your notebook. You never know when technology will fail you
2. Have a copy of the interview protocol or workshop agenda with you, so you can structure notes with subheadings of questions
3. Underline key words and phrases in your notes
4. VERY IMPORTANT: Your notes should record all of a conversation, including differences in opinion, conflicting statements, statements of agreement from a different party. It is not enough to record only the final conclusion of a conversation (this is usually recorded on the worksheet anyway). Notes need to provide depth
5. Don't just write down what you hear, write down what you see
6. If the participant is speaking too fast, don't be afraid to say "Please give me a second; I want to write that down" or, "That sounds important; can you please say it again?"
7. As soon as you can after the interview, look at your notes. Fill them out from memory and type them up.

Sources: Newing et al., 2010; Daze et al. (2009)

Annex 3: Innovation Histories workshop agenda

This template agenda can be adapted according to how you design your research. For example, if it is a multi-stakeholder, large workshop with several sub-groups, you could divide into stakeholder groups and develop separate timelines, and then facilitate exchange of learning between the different groups later. Agenda times will need to be adjusted according to workshop customs of your case, such as the timings of snacks and lunch. The times in the below template are planned so that the Innovation Histories and Net-Map tools can be conducted over two mornings.

.....

Date:

Venue:

Participant list

| Participant name | Organisation | Telephone number | Allowance paid? |
|------------------|--------------|------------------|-----------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Objectives:

1. Capture the key events, their significance and actor roles in the history of [add name of innovation].
2. Identify enablers of progress and mechanisms for overcoming challenges and obstacles.
3. Facilitate shared learning amongst participants from past experiences in order to plan for the future.
4. Build capacity of facilitators in applying the Innovation Histories method as a participatory research tool.

Outputs:

- Stakeholder group timelines of key events in the history of the [name of innovation]
- Lessons learnt and research themes for further investigation during interviews
- Facilitation team trained in Innovation Histories method.

Agenda Overview

- Introduction
- Timeline creation
- Identifying most important events
- Identifying critical challenges and strategies
- Lessons learnt and themes.

Roles and responsibilities

The people who will play these roles must be identified before the workshop and participants should know who they are.

Workshop owner and Chair (add name of the 'champion' of the research)

- Invites people and will use the results to inform the future work of [name of organisation(s)/programme]
- The person with the final say about what can or can't happen.

Process advisor (person with experience of PMGA, if available)

- Provides advice and content based on experience running previous workshops.

Lead facilitator (add name from your facilitation team)

- Responsible for delivering the process that will produce the objectives agreed with the workshop owner and process advisor
- Introduces process and facilitates steps in process
- Supervises other team members
- Asks semi-structured questions about interesting events.

Group facilitators (needed when there are more than 8-10 participants)

- Facilitate break-out groups
- Take notes during group discussions.

Note taker(s) (note taker name)

- Takes notes during plenary
- Responsible for delivering the workshop report and organizing others to help (the group facilitators).

Room requirements and layout

- The workshop room should be large enough to comfortably fit [number of participants]
- Put three large tables together, long enough to lay several sheets of flipchart paper to create the blank timeline
- Set up room with PowerPoint projector and screen at the front.

Materials

[change number of units according to number of participants]

- PowerPoint projector and white wall or screen to project onto
- Extension cables for projector and for people to work on laptops (5 should be sufficient)
- Name stickers
- Flipchart paper (50 pieces)
- Sticky tape to stick flipchart paper together to form timelines
- Event slips (300)

- Blue-tac to stick event slips to timeline
- Biro pens (40)
- Assorted marker pens (24)
- Summary of event types for tables (4 for each table)
- Post-it notes
- Workshop evaluation forms (40)
- Certificates of attendance (issued at close of workshop) (30)
- Research consent forms (40)

Facilitators' detailed workshop agenda

Facilitators' pre-workshop meeting to review preparations (venue, materials), workshop objectives and agenda, and run practice session.

| Start time | Activity | Purpose | Responsible |
|------------|---|--|------------------|
| 0800 | Registration | Register attendance and provide name label Handing out of research consent form Show to table and ensure seated at correct group table [if sub-groups] | |
| | 1 | Welcome, scene-setting and research purpose | |
| 0900 | Welcome by Chair [champion] | The Chair will welcome participants on behalf of themselves and the [organisation/programme they represent] | |
| 0920 | | [Any customs, such as prayers, national anthem etc.; this might come before welcome] | |
| 0930 | Introduction: Putting the workshop in context | About the programme; scene-setting; purpose of research; learning from the past provides important lessons for the future; guarantees of confidentiality | Lead facilitator |
| 0950 | Objectives and overview of workshop agenda | Short presentation followed by Q&A, including purpose of workshop, expectations of participants and overview of agenda | Lead facilitator |
| | 2 | Creating Timelines | |
| 1000 | Introduction to activity | What have been the key events in the emergence and evolution of [name of innovation]? Explain the different types of event | Lead facilitator |

| | | | |
|------|-------------------------------------|--|--|
| 1010 | Task A: Write events on event slips | <p>1. Ask participants to individually write down positive and negative events that they think were important in the initiation, implementation and evolution of the [name of innovation] on event slips</p> <p>2. Point them towards the different event types listed on printed sheets</p> <p>3. Support those that are unsure or quiet by asking them questions such as:</p> <ul style="list-style-type: none"> • When did you first hear about the idea of the [innovation]? • What was the first event you were involved in? • What has happened since then? • What has influenced the [innovation] (e.g. from the past or from outside [the study site]) <p>4. Ask participants to stick the key events to the timeline</p> <ul style="list-style-type: none"> • Go from start to finish of the timeline, asking participants to stick their events on it • Stop on each event and ask them why it was important • Ask the participants to consider what events are missing as you go along the timeline and add event slips where necessary <p>5. Ask questions to get more details about the events, such as:</p> <ul style="list-style-type: none"> • What happened? • When did it happen? • Why did it happen? • Who was involved? Who played the most important role? • How did you feel about it? Was it good or bad? • What were the obstacles? • How did you overcome problems? • Who disagreed with it? • Who benefitted? Who lost out? • What could have been done differently? • What did you learn? • What were the outcomes? | <p>Group facilitators</p> <p>Note taker(s) record discussions and disagreement, such as why they said an event was important</p> |
| 1100 | | Snack break | |

| | | | |
|-------------|------------------------------|--|--|
| | | 3 Task B: Most important and challenging events | |
| 1120 | Introduction to task | | Lead facilitator |
| | Rank most important events | <ul style="list-style-type: none"> • Ask your group to review their timeline • Using post-it notes (labelled 1 – 5), ask the group to rank the five most important events on the timeline • Ask them to explain each of the important events and why they were important | Group facilitators |
| | Rank most challenging events | <ul style="list-style-type: none"> • Using different coloured post-it notes, ask the group to rank the five most challenging events • Ask them to explain why each of them were challenging | |
| | | 4 Lessons learnt and emerging themes | |
| 1145 | Introduction | | Lead facilitator |
| | | <p>1. Ask the group to review the timeline and discuss: [Qs to be agreed upon by co-researcher teams]</p> <ol style="list-style-type: none"> What have been the key factors and strategies for (i) starting and (ii) implementing [name of innovation]? Who were the most important people/organisations in the history of [name of innovation]? Why? What were the biggest challenges and obstacles to (i) starting and (ii) implementing [name of innovation]? Who resisted [name of innovation]? How did they resist? Why? Who has benefitted most from [name of innovation]? Why? Who has been negatively affected by [name of innovation]? Why? What are the main lessons you have learnt from the history? How could the [name of innovation] be improved in the future? What do you want the research project to investigate further? <p>2. One person from each group presents back their answers [if sub-groups]</p> | <p>Group facilitator</p> <p>Film presentations</p> |

| | | | |
|------|--|--|--|
| 1240 | | Ask participants to complete workshop evaluation forms | |
| 1250 | | Lunch or close of meeting (discuss next steps) | |

After workshop (preferably same day while fresh in mind)

1. Complete preliminary analysis form (Annex 5) as facilitation group.
2. Type up all notes and include your thoughts/reflections in different colour or in square brackets.

Annex 4: Workshop evaluation form

The below provides a template evaluation form for participants at your workshops to provide feedback to you. This will help you improve future workshops and understand whether the experience has had immediate benefits for participants.

Workshop Evaluation Form

for *participants* in [name of project] Workshops

Title and location of workshop:

Date: _____

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|----------------|-------|---------|----------|-------------------|
| 1. The objectives of the workshop were clearly defined | | | | | |
| 2. Participation and interaction were encouraged | | | | | |
| 3. The topics covered were relevant to me | | | | | |
| 4. The content was organized and easy to follow | | | | | |
| 5. This workshop experience will be useful in my work | | | | | |
| 6. The time allotted for the activities was sufficient | | | | | |
| 7. The room and facilities were adequate and comfortable | | | | | |

8. What did you like most about this workshop?

9. What aspects of the workshop could be improved?

10. What lessons did you learn from the workshop? Please give as much detail as you can.

11. How will you use what you learnt at the workshop in your work?

12. Are there any topics or issues that you would like to learn more about?

13. Please share other comments or expand on previous comments.

What were the most important events?

| | Event | Why? |
|---|-------|------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |

What were the most challenging events?

| | Event | Why? |
|---|-------|------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |

What are the key factors and strategies for (i) starting and (ii) implementing [name of innovation]

| Key factors and strategies | Notes |
|----------------------------|-------|
| | |
| | |
| | |
| | |
| | |
| | |

Who/what were the most important people and organisations in history?

| People/organisation | Why? |
|---------------------|------|
| | |
| | |
| | |
| | |

| | |
|--|--|
| | |
| | |
| | |

Who resisted [name of innovation]?

| Who resisted? | How? | Why? |
|---------------|------|------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Other questions

| | |
|--|--|
| Who has benefited most from [name of innovation]? Why? | |
| Who has been negatively affected by [name of innovation]? Why? | |
| What are the main lessons you have learnt from the history? | |
| How could the [name of innovation] be improved in the future? | |
| What do you want the research project to investigate further? | |

Annex 6: Innovation history and Net-Map interview protocol

This annex provides an example of a protocol for the ideal and full implementation of the methods. For practical reasons, it could be adapted to shorten the time taken to match the time availability of key informants. The Net-Map session of the protocol can be held as a focus group instead of interview format to reduce the time and resources required to implement the methods.

Summary of interview activities

The interviews will be held over two sessions: the first, an actor network and influence mapping exercise (1-2 hours); and the second a reflective interview about the timeline of key events (1-1.5 hours).

First session:

1. Introduction. Interviewer presents context and purpose of research, reasons for approaching the participant and then presents ground rules that protect the participant's confidentiality and anonymity
2. Interviewer facilitates actor network and influence mapping (Net-Map)
3. At the end, interviewer makes sure that the proper follow-up information has been obtained (how to contact the person for quote-checking and appropriate title etc.).

Second session:

1. Interviewer presents a visualised timeline collated from the participatory workshop and conducts semi-structured interview.

Documents

- Interview protocol
- Consent form
- Timeline and actor maps (printed in colour on A3)
- Key event types
- List of types of relationships

Equipment Required

- Digital recorder
- Camera
- Actor cards, flip chart paper, coloured pens, influence towers (e.g. poker chips)
- Coloured pens, highlighter pen and ruler

Context and purpose of research

Thank you for offering your time to this research. I'd like to begin by recapping on its context and purpose.

The research is part of [details about programme or project].

This project is exploring how the [name of innovation] emerged and evolved over time to [add details of innovation]. We are particularly interested in factors that enable and block progress.

We aim to provide an opportunity for you and other people with an interest in [name of innovation] to look back at what has happened so far, learn from past experiences and find ways to improve [locally relevant term, e.g. coastal marine management/marine planning] in the future.

In our first interview, we will explore the relationships amongst people and organisations that are involved in or affected by [name of innovation]. We will use pens and paper to map a network of who is involved or affected, how they are linked to each other, and their influence on [name of innovation].

The second interview will look in more detail at the timeline of key events in the development of the [name of innovation] that we produced at the workshop on [date and place of workshop].

I hope this brief summary has given sufficient background to our research and what we will do in the next couple of hours. Before we proceed to discussing your rights to confidentiality and anonymity, do you have any questions?

Guarantees of confidentiality and anonymity

I'll now run through your guarantees of confidentiality and anonymity, and what they mean in practice. Please feel free to ask questions at any point.

- Before I advise you of guarantees of confidentiality and anonymity I need to let you know that everything you say during this interview is potentially usable in our research.
- However, all quotes attributed to you by name will be validated with you before it is published. You will have the opportunity to correct errors and add comments.
- You have a right to anonymity throughout the research. I will only use your name and attribute information from our discussions if you confirm you are happy for me to do so.
- I need to gain your permission to digitally audio record the interview. The recording allows me record what you say accurately, and to focus on talking with you, instead of taking notes. It also ensures you will be heard, speaking your own voice, in the research. This recording will be treated as anonymous and will only be heard by our research team.
- To summarise, nothing from this interview will be repeated with your name attached, and nothing will be shown to anyone besides those on our research team before you have a chance to approve it.

If you are happy to proceed with the interview on the ground rules just covered, could I please ask you to sign two copies of the form. One copy is for you to keep and the other copy is for me to keep.

Do you have any questions before we proceed with the interview activities?

Participant Information

I'd like to collect some personal information before we start the interview.

| | |
|----------------------|--|
| Name | |
| Year of birth | |

| | |
|--|--|
| Gender | |
| Interview site | |
| Age | |
| Permanent residence (town/city, province) | |
| Place of work | |

Actor network and influence mapping (interview 1) [*skip if already undertaken or using workshop format*]

Introduction

I would like to talk to you about the relationships amongst people and organisations that are involved in or affected by [name of innovation]. By today, I mean people and organisations involved in the last year only, not those that are no longer involved. I am interested in how people collaborate and learn together in [name of place].

We will use this sheet of paper and pens to map a network of who is involved and affected, how they are linked to each other and their influence on [name of innovation].

Who is involved in, or influences, or is affected by [name of innovation] in [place name]?

- a) I would like you to write the names of organisations and key people that are involved in or influence [name of innovation] in [place name] on these cards. I would also like you to write down the names of those that are affected or impacted by [name of innovation] in [place name]. Write the names of anyone that comes to mind, including those with no formal decision-making role. You may add additional names at any point during the interview. I only want you to list down people who have been involved in the past year.
- b) Spread out the cards on the sheet. You may group similar people and organisations.

Key people and organisations may include [*edit list to make relevant to your context*]:

- Elected government officials
- Government staff
- [Local term for civil society organisations]
- Provincial government
- National agencies and departments
- International organisations
- Academics
- Individuals.

Remember to include people who do not have any formal role in making decisions but who you believe are important in the network.

How are they linked?

I would like to find out how these people and organisations are linked.

Using these coloured pens, I would like you to draw arrows between the people and organisations. Each colour represents a different way the people and organisations are related [*other types of relationship might be considered instead*]:

- Formal lines of command (who reports to who?) (red)
- Flows of funding and resources/materials (green)
- Giving advice (blue)
- Flows of information and data (black)

Rules

- The direction of the arrow represents who gives and who receives, for example, the advice. If it flows in both directions, use a double-ended arrow [*draw an arrow as an example*].
- If two actors exchange more than one thing, arrow heads of different colours can be added to arrows (draw example)
- Only draw an arrow if you know the relationship exists. If you are unsure, you do not need to draw an arrow
- You are not looking at how links should or will be, or how they were in the past, but how they currently are, TODAY.

Steps

1. Start by drawing the links between you or your organisation and the other actors.
2. Go through each type of relationship one at a time.

What links are crucial, problematic or absent? Why?

Write symbols on the map to represent links that are:

- (i) Most important (symbol = !!)
- (ii) Challenging (x)
- (iii) Absent but needed (?)

Questions:

1. Which relationships are most important for the success and sustainability of [name of innovation]? Why?
2. Which relationships/links are the most problematic or challenging for the success and sustainability of [name of innovation]? Why?
3. What relationships are missing but would be beneficial?

How influential are they?

I would like to find out the ability of the people on the map to influence [name of innovation] in [place].

How would you define influence in this context? [*have a discussion about what influence means and ensure they recognise that influence is not just about formal hierarchies or the influence of an actor in general, but about their influence specific to the governance innovation*]

There are many sources of influence, including the power to make decisions, the ability to influence decisions, influence through giving advice, the power to give and take away funding, or bending or breaking rules.

Steps:

1. I would like you to now create *influence towers* using *tower pieces*:

- The more influence an actor has, the higher the tower
- The tower can be as high as you want
- Two or more actors can have towers the same height
- If an actor has no influence, they will have no influence tower
- Influence can be both positive or negative
- It is the relative difference in the height of the towers that is important.

2. Can you indicate with an X those organisations/people whose influence is negative?

3. [Check that the participants are happy with the heights of the influence towers by summarising the differences: You think [name of organisation/person] is the most influential and these are second and third most influential on [name of innovation]; that these [name organisations/people] have no influence, etc.]

4. Questions:

- Why is this [organisation/person] the most influential?
- Why are these [organisation/person] second and third most influential?
- Why do these [organisation/persons] have no or little influence?
- Has the introduction of [name of innovation] made any of the organisations/people more or less influential?

Discussion about Net-Map [*select and adapt questions to meet your research aims and time availability*]

1. What are the most important actors and relationships? Why?
2. What problems and conflicts exist amongst actors?
3. How do the goals and interests of the actors differ?
4. Who disagrees with [innovation] the most? Why?
5. What happens to resolve conflict?
6. How have differences in the influence of stakeholders affected the way [the innovation] is implemented?
7. Who should have more or less influence than they currently have on decision-making? Why?
8. How has the influence of actors changed over the course of the innovation history? (i.e. were some actors more or less influential in the past?)
9. Looking to the future, what changes to the network are necessary for the successful implementation of [name of innovation]?

Timeline of key events (interview 2)

Introduction

Timelines of the [name of innovation] were developed at the workshop [*present timeline*]. We'll use this to guide us through the first part of the interview.

I would like us to review the timeline to:

- (i) Identify events absent from the timeline
- (ii) Rank the most important events
- (iii) Discuss your experiences of the events

As I ask you questions, I will annotate the timeline with some of the key points and events from your interview. If you would find it useful to annotate the timeline instead of me or together with me then please feel free to do so.

I have pre-prepared a few questions that I would like to ask you, but expect the interview to feel more like a conversation than a formal interview.

Activities

- a) I would like you to spend several minutes reading the timeline to consider whether it is missing any (i) important events in the story of the [name of innovation] or (ii) wider influences on its development [*give interviewee several minutes to review and present list of key event types, discussing what each type of event means in turn*].
- b) From your perspective, which of the events on the timeline were the most important [*highlight events with pen*]?
- c) I'd now like us to talk about the timeline in more depth, focusing on the key events you have identified and some that I would like to know more about [*use the semi-structure to ask questions about events identified as important at the workshop and during the interview*].

Interview semi-structure

Ask questions about the important events by adapting the following questions according to the type of event:

- What happened?
- When did it happen?
- Why did it happen?
- Who was involved? Who played the most important role?
- How did you feel about it? Was it good or bad?
- What were the obstacles?
- How did you overcome problems?
- Who disagreed with it?
- Who benefitted? Who lost out?
- What could have been done differently?
- What did you learn?
- What were the outcomes?

Future interviewees

In order to help me develop a representative story of the group's experiences I hope to perform this interview with a number of additional people. From the people we have just discussed can you please recommend up to five who I should contact for interview?

- Name?

- Reason for selecting?
- Happy to share contact details?

Interview Close

We're at the end of the interview now. However, there is always a chance my list of questions may not have reflected everything you wanted to, or could have, said. So:

- Is there anything you would add to what has been discussed so far? Anything that needs to be said?
- Are there questions I should have asked?
- Is there anything else you'd like to say?

Participant details for quote checking

- How should I reach you for quote checking?
- Can I call if there are questions or clarifications that come up later?

| | |
|---|--|
| Name | |
| Address | |
| Telephone | |
| Email | |
| Times unavailable for quote checking | |

Net-Map analysis form

Date and time:

Where:

Stakeholder group [i.e. type of actor your insider/key stakeholder is]:

1. List the actors and describe their goals and influence

| Actor | Influence score | Justification for influence score |
|-------|-----------------|-----------------------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

2. Describe how the actors are linked

| Link/relationship type | Who is most connected in the network for each relationship type | Describe how the actors are connected for each type of relationship [Give as much detail as possible] |
|--|---|---|
| Formal lines of command | | |
| Resources (money, materials, staffing) | | |
| Advice | | |
| Information/data | | |

3. Record the discussions about each of the questions

| Question | Notes from discussion |
|--|-----------------------|
| What are the most important actors and relationships? Why? | |
| What problems and conflicts exist amongst actors? | |
| How do the goals and interests of the actors differ? | |

| | |
|---|--|
| <p>Who disagrees with [innovation] the most? Why?</p> | |
| <p>What happens to resolve conflict?</p> | |
| <p>How has differences in the influence of stakeholders affected the way [the innovation] is implemented?</p> | |
| <p>Who should have more or less influence on decision-making? Why?</p> | |
| <p>How has the influence of actors changed over the course of the innovation history? (i.e. were some actors more or less influential in the past)</p> | |
| <p>Looking to the future, what changes to the network are necessary for the successful implementation of [name of innovation]?</p> | |

Annex 8: Thematic coding

Your data can be analysed inductively by using thematic coding. Coding involves the assigning of tags (such as a key word or phrase) based on categories and themes that are relevant to the research. It can be used as a way of identifying what all the data you have collected actually means. As a researcher, you are interpreting the data; it is an inductive, often messy process, and can feel very strange and even unscientific if you come from a quantitative scientific background.

There are software packages to undertake coding, most notably NVivo. This can be very helpful when you are coding across many data sources. If you undertook many interviews and workshops/focus groups, using such software can be beneficial if there are the requisite skills in your team. However, a low-tech paper and pens technique can be just as effective, and perhaps easier if only analysing several workshop reports and transcripts.

1. Coding Nvivo

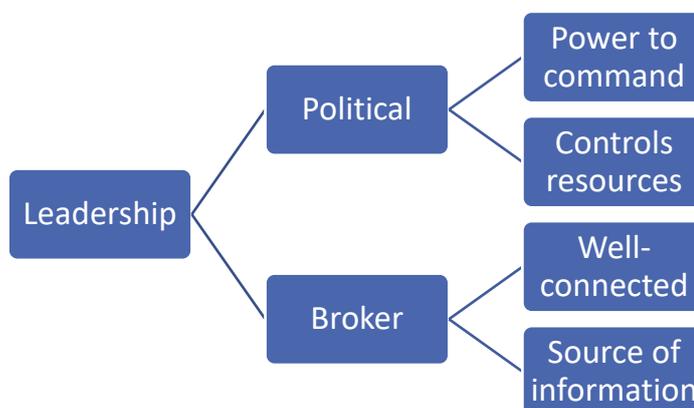
Nvivo means to code transcripts based on the words used by your participants. Go through your learning history report and Net-Map analysis form and highlight (either on paper or on screen) words and phrases that you think were interesting or important. You are letting the data speak rather than finding what you want. These are your basic codes.

2. Group the codes

You now want to find the broader themes. Write down all the Nvivo codes and try to group them under broader themes. Some of these broader themes may have already been identified in your left column of the learning report, or relate to sections in your analysis forms. For example, 'decided to work together' could be grouped under a category of 'partnership' or 'collaboration'. Creating categories is an iterative process: you may wish to re-categorise, group similar categories or group categories under a broader category.

3. Relate the categories to theory

Go back to Tables 3 and 4 in this handbook and consider if your categories relate to any of the terms. Do any of your categories fall under the theoretical terms? What additional categories can you find in your data? You will eventually end up with a tree of categories.



These trees of codes can form the structure of the sections you include in your publications.

4. Assign codes to data

Go back through the data and use coloured pens and writing to highlight where each of the codes are discussed. You can then refer to the relevant data as you write up your findings in your report.

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